

Application No.: 09/878,346

Art Unit No.:2124

Page 2

Listing of Claims

1. (Currently amended) A method for upgrading existing firmware on third party hardware, comprising:

sending a request to said third party hardware requesting identification information and an existing firmware version indicator;

receiving a reply from said third party hardware with said identification information for said third party hardware and [[a]] said existing firmware version indicator for said existing firmware on said third party hardware;

utilising utilizing said identification information to obtain a stored firmware version indicator for said third party hardware;

comparing said received existing firmware version indicator with said stored firmware version indicator;

if said received existing firmware version indicator differs from said stored firmware version indicator, retrieving upgrade firmware for upgrading said existing firmware from a remote location.

2. (Currently amended) The method of claim 1 wherein said utilising utilizing said identification information is also to obtain a stored address which addresses said remote location and wherein said retrieving comprises connecting to said remote location as specified by said address.

3. (Original) The method of claim 2 wherein said address is an Internet Protocol (IP) address.

Application No.: 09/878,346

Art Unit No.:2124

Page 3

4. (Original) The method of claim 1 further comprising upgrading said existing firmware with said upgrade firmware.

5. (Original) The method of claim 4 wherein said upgrading comprises sending said upgrade firmware to a controller for said third party hardware.

6. (Original) The method of claim 4 wherein said retrieving also comprises retrieving an upgrade firmware version indicator.

7. (Original) The method of claim 5 wherein said retrieving also comprises retrieving an upgrade firmware version indicator and wherein said upgrading further comprises sending said upgrade firmware version indicator to said controller.

8. (Currently amended) The method of claim 2 wherein said utilizing utilizing comprises querying a database with said identification information for a record having said stored version indicator and said stored address.

9. (Original) The method of claim 8 further comprising receiving said database, said database having a plurality of records each comprising identification information, a version indicator, and an address.

10. (Original) The method of claim 2 wherein said identification information comprises a manufacturer identifier and a part identifier.

Application No.: 09/878,346

Art Unit No.:2124

Page 4

11. (Original) The method of claim 8 wherein said stored version indicator is a stored version number and wherein said received version indicator is a received version number.

12. (Original) The method of claim 6 wherein said upgrading comprises sending upgrade messages to said third party hardware over a serial link to transfer said upgrade firmware version indicator and said upgrade firmware to said third party hardware.

13. (Original) The method of claim 12 wherein each upgrade message comprises a fragment indicator to indicate whether or not said each upgrade message is the last upgrade message in a sequence of upgrade messages for transferring said upgrade firmware and said upgrade firmware version indicator.

14. (Original) The method of claim 13 further comprising awaiting a reply message after sending said each upgrade message.

15. (Original) A method for upgrading existing firmware on third party hardware, comprising:
sending a request to said third party hardware requesting identification information and an existing firmware version indicator;
receiving a reply from said third party hardware with said identification information and said existing firmware version indicator;
sending said identification information and said existing firmware version indicator addressed to an address;
receiving an upgrade firmware version indicator and upgrade firmware;
transferring said upgrade firmware version indicator and said upgrade firmware to said

Application No.: 09/878,346

Art Unit No.:2124

Page 5

third party hardware.

16. (Currently amended) The method of claim 15 further comprising:

before said sending said identification information and said existing firmware version indicator, comparing said existing firmware version indicator with a stored firmware version indicator and sending only if said existing firmware version indicator differs from said stored firmware version indicator.

17. (Original) The method of claim 15 wherein said sending a request comprises sending a request on power-up.

18. (Currently amended) A system for upgrading existing firmware on third party hardware, comprising:

a local area network (LAN) interface for connection to a LAN;

a wide area network (WAN) interface for connection to a WAN;

a memory for storing a database;

a master processor operable to:

receive identification information for said third party hardware from said LAN interface and a firmware version indicator for said existing firmware on said third party hardware;

utilise utilize said identification information to obtain a stored firmware version indicator for said third party hardware from said memory;

compare said received firmware version indicator with said stored firmware version indicator;

Application No.: 09/878,346

Art Unit No.:2124

Page 6

if said received firmware version indicator differs from said stored firmware version indicator, retrieve upgrade firmware for upgrading said existing firmware from a remote location over said WAN interface.

19. (Currently amended) The system of claim 18 further comprising:

a controller for said third party hardware having a controller LAN interface, a serial interface for connection to said third party hardware, and a controller processor,

20. (Original) The system of claim 19 wherein said controller processor is operable to:

send a request message to said third party hardware interface requesting identification information and a firmware version indicator;

receive a reply message over said third party hardware interface with said identification information and said firmware version indicator;

send identification information and said firmware version indicator from said controller LAN interface addressed to an address for said master processor;

receive an upgrade firmware version indicator and upgrade firmware over said controller LAN interface;

send upgrade messages to said third party hardware interface in order to send said upgrade firmware version indicator and said upgrade firmware over said third party hardware interface.

21. (Original) The system of claim 20 wherein said controller processor is operable to send said request on power-up.

22. (Currently amended) A system for upgrading existing firmware on third party hardware,

Application No.: 09/878,346

Art Unit No.: 2124

Page 7

comprising:

means for sending a request to said third party hardware requesting identification information and an existing firmware version indicator;

means for receiving a reply from said third party hardware with said identification information for said third party hardware and [[a]] said existing firmware version indicator for said existing firmware on said third party hardware;

means for utilising utilizing said identification information to obtain a stored firmware version indicator for said third party hardware;

means for comparing said received firmware version indicator with said stored firmware version indicator;

means for, if said received firmware version indicator differs from said stored firmware version indicator, retrieving upgrade firmware for upgrading said existing firmware from a remote location.

23. (Currently amended) A computer readable medium for providing computer executable instructions which, when executed on a processor interfaced with a local area network (LAN) to which a controller for third party hardware is connected and a wide area network (WAN) to which a source of upgrade firmware is connected, cause said processor to:

receive identification information for said third party hardware from said LAN and a firmware version indicator for existing firmware on said third party hardware;

utilise utilize said identification information to obtain a stored firmware version indicator for said third party hardware from memory;

compare said received firmware version indicator with said stored firmware version indicator;

Application No.: 09/878,346

Art Unit No.:2124

Page 8

if said received firmware version indicator differs from said stored firmware version indicator, retrieve upgrade firmware for upgrading said existing firmware from said source over said WAN.

24. (Currently amended) A method for upgrading existing firmware on third party hardware connected to a local area network (LAN) through a controller utilising utilizing a wide area network (WAN) to which a source of upgrade firmware is connected, comprising:

receiving from said controller over said LAN identification information for said third party hardware and a firmware version indicator for said existing firmware on said third party hardware;

utilising utilizing said identification information to obtain a stored firmware version indicator for said third party hardware;

comparing said received firmware version indicator with said stored firmware version indicator;

if said received firmware version indicator differs from said stored firmware version indicator, retrieving upgrade firmware for upgrading said existing firmware from said source over said WAN.